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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/753,093	01/07/2004	Susan M. Barnabo	PCC123	2751

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MANCHESTER, NH 03101

EXAMINER

SCHINDLER, DAVID M

ART UNIT	PAPER NUMBER
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2862

DATE MAILED: 03/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/753,093	BARNABO ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	David Schindler	2862	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. ____.  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>12/03/2004</u> .  | 6) <input type="checkbox"/> Other: ____.                                    |

## **DETAILED ACTION**

### ***Specification***

1. The disclosure is objected to because of the following informalities:

The phrase "and installed" on line 22 of page 2 does not have a period.

The phrase "Gis" on line 11 of page 7 appears to be incorrect and it is recommended to change this phrase to "G is."

Appropriate correction is required.

### ***Claim Objections***

2. Claims 10, 11, and 18 are objected to because of the following informalities:

As to Claim 10,

The phrase "and second magnets" on line 2 appears to be incorrect and it is recommended to change this phrase to "and second magnet."

As to Claim 11,

The phrase "said sensor assembly being mounted to a first of said movable rail and said stationary rail" on lines 3-4 is unclear. It is not clear what the term "first" is referring to. It is also unclear which rail the sensor assembly is being mounted to.

The phrase "a first out put" on line 5 appears to be incorrect and it is recommended to change this phrase to "a first output."

The phrase "said second of said movable rail ..." on line 7 is unclear as it is not clear what the term "second" is referring to.

The phrase "and second position" on line 9 is awkward and it is recommended to change this phrase to "and said second position."

The phrase "rail a second output" on line 6 is awkward and it is recommended to change this phrase to "rail and a second output."

As to Claim 18,

The phrase "said output" on line 8 lacks antecedent basis as it is not clear which output (i.e. "the first output" of lines 3-4 or "the second output" of line 5) this phrase is referring to.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1,2,3,5-8,11,13,14, and 17-20 rejected under 35 U.S.C. 102(b) as being anticipated by Becker et al. (6,095,555).

As to Claim 1,

Becker et al. discloses a sensor assembly (combination of (70) and (72)) comprising at least one magnet (72) disposed adjacent a magnetic field sensor ((70) / hall), and an activating member (48), the magnetic field sensor providing a first output when the activating member is in a first position relative to the sensor assembly and a second output when the activating member is in a second position relative to the sensor assembly, the activating member not extending between the magnet and the magnetic

field sensor in either of the first and the second position ((Figures 2-5) and (Column 3, Lines 65-67) and (Column 4, Lines 1-54)).

It is noted that Examiner is interpreting the activating member (48) to be adjacent to the magnetic field sensor (70) and magnet (72) and does not extend between them. Please see column 4, lines 25-27 of Becker et al. (6,095,555). Also please note the position of the magnet, sensor, and the rails in applicant's Figures 1, 2, 3,4, and 6A in comparison to Figures 2-5 of Becker et al.. This rationale applies to all claims.

As to Claim 2,

Becker et al. discloses the magnetic field sensor comprises a Hall sensor (70) (Column 4, Line 55).

As to Claim 3,

Becker et al. discloses the sensor assembly (combination of (70) and (72)) is mounted to a rail of an automobile seat rail system ((Figure 2) and (Column 2, Lines 48-53) and (Column 3, Lines 41-46)).

As to Claim 5,

Becker et al. discloses the sensor assembly (combination of (70) and (72)) is mounted to the rail ((32) / T-shaped guide member) via a bracket (34) ((Figure 2) and (Column 2, Lines 48-53) and (Column 3, Lines 41-46)).

As to Claim 6,

Becker et al. discloses the activating member is a rail of an automobile seat rail system ((Column 2, Lines 66-67) and (Column 3, Lines 65-67) and (Column 4, Lines 20-32) and (Column 4, Lines 45-54) and (Column 5, Lines 9-10) and (Figures 2-5)).

As to Claim 7,

Becker et al. discloses the activating member is attached to a rail of an automobile seat rail system (Column 7, Lines 9-19).

As to Claim 8,

Becker et al. discloses the sensor assembly (combination of (70) and (72)) is mounted on a first rail of an automobile seat rail system ((Figure 2) and (Column 2, Lines 48-53) and (Column 3, Lines 41-46)), and the activating member is a second rail of the automobile seat rail system ((Column 2, Lines 66-67) and (Column 3, Lines 65-67) and (Column 4, Lines 20-32) and (Column 4, Lines 45-54) and (Column 5, Lines 9-10) and (Figures 2-5)).

As to Claim 11,

Becker et al. discloses a seat rail system (Figure 2) comprising a movable rail (48) and a stationary rail (32), a sensor assembly (combination of (70) and (72)) comprising at least one magnet (72) and a Hall device (70), the sensor assembly being mounted to a first of the movable rail and the stationary rail, and the Hall device providing a first output when the movable rail is in a first position relative to the stationary rail a second output when the movable rail is in a second position relative to the stationary rail, the second of the movable rail and the stationary rail not extending between the at least one magnet and the Hall device in either of the first position and second position ((Figures 2-5) and (Column 3, Lines 65-67) and (Column 4, Lines 1-54)).

As to Claim 13,

Becker et al. discloses the sensor assembly is mounted to the stationary rail (32) / T-shaped guide member) ((Figure 2) and (Column 2, Lines 48-53) and (Column 3, Lines 41-46)).

As to Claim 14,

Becker et al. discloses the sensor assembly (combination of (70) and (72)) is mounted to one of the movable rail (48) and the stationary rail (32) via a mounting bracket ((Figure 2) and (Column 2, Lines 48-53) and (Column 3, Lines 41-46)).

As to Claim 17,

Becker et al. discloses one of the movable rail (48) and stationary rail (32) comprises an activating member (48), the activating member being in a first activating position relative to the sensor assembly when the movable rail is in the first position relative to the stationary rail, and the activating member being in a second activating position relative to the sensor assembly when the movable rail is in the second position relative to the stationary rail, the activating member not extending between the at least one magnet and the Hall device in either of the first and second activating positions ((Figures 2-5) and (Column 3, Lines 65-67) and (Column 4, Lines 1-54)).

As to Claim 18,

Becker et al. discloses providing a sensor assembly (combination of (70) and (72)) comprising at least one magnet (72) and a Hall device (70), mounting the sensor assembly to a first seat rail (32) ((Figure 2) and (Column 2, Lines 48-53) and (Column 3, Lines 41-46)), the Hall device providing a first output when the sensor assembly is in a first position relative to a second seat rail and a second output when the sensor

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assembly is in a second position relative to the second seat rail, the second seat rail not extending between the at least one magnet and the Hall device in either of the first and second positions ((Figures 2-5) and (Column 3, Lines 65-67) and (Column 4, Lines 1-54)), and determining a position of the seat in response to the output ((Column 5, Lines 20-27) and (Column 5, Lines 46-52)).

As to Claim 19,

Becker et al. discloses mounting an activating member (a member constructed of ferromagnetic material) to the second seat rail (Column 7, Lines 9-19), the Hall device providing a first output when the activating member is in a first position relative to the sensor assembly and a second output when the activating member is in a second position relative to the sensor assembly, the activating member not extending between the at least one magnet and the Hall device in either of the first and second position of the activating member ((Figures 2-5) and (Column 3, Lines 65-67) and (Column 4, Lines 1-54)).

As to Claim 20,

Becker et al. discloses at least one magnet (72), a magnetic field sensor (70) disposed adjacent the at least one magnet (Figure 4), the magnetic field sensor providing a first output when an activating member is in a first position relative to the at least one magnet and the magnetic field sensor and a second output when the activating member is in a second position relative to the at least one magnet and the magnetic field sensor, the activating member not extending between the at least one



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magnet and the magnetic field sensor in either of the first and second positions

((Figures 2-5) and (Column 3, Lines 65-67) and (Column 4, Lines 1-54)).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 4 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Becker et al. (6,095,555) in view of Tokunaga et al. (6,683,544).

As to Claim 4,

Becker et al. discloses as explained above.

Becker et al. does not disclose the sensor assembly is mounted directly to the rail.

Tokunaga et al. discloses the sensor assembly (1) is mounted directly to the rail (Figure 7).

It would have been obvious at the time of the invention to modify Becker et al. to include the sensor assembly is mounted directly to the rail as taught by Tokunaga et al. in order to detect the position of a seat of an automobile (Column 1, Lines 6-9).

As to Claim 12,

Becker et al. discloses as explained above.

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Becker et al. does not disclose the sensor assembly is mounted to the movable rail.

Tokunaga et al. discloses the sensor assembly is mounted to the movable rail ((Figure 7) and (Column 5, Lines 37-42) and (Column 5, Lines 54-60)).

It would have been obvious at the time of the invention to modify Becker et al. to include the sensor assembly is mounted directly to the movable rail as taught by Tokunaga et al. in order to detect the position of a seat of an automobile (Column 1, Lines 6-9).

7. Claims 9, 10, 15, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Becker et al. (6,095,555) in view of Vig et al. (5,781,005).

As to Claim 9,

Becker et al. discloses as explained above.

Becker et al. does not disclose the at least one magnet has a C-shape cross section.

Vig et al. discloses the at least one magnet has a C-shape cross section (Top Row / Middle Drawing in Figure 41).

It would have been obvious at the time of the invention to modify Becker et al. to include the at least one magnet has a C-shape cross section as taught by Vig et al. in order to complete the magnetic circuit.

It is noted that any shape may be used as long as it completes the magnetic circuit with the hall sensor.

As to Claims 10 and 16,

Becker et al. does not disclose the at least one magnet comprises a first and second magnets.

Vig et al. discloses the at least one magnet comprises a first (Left Magnet) and second magnets (Right Magnet) (Top Row / Middle Drawing in Figure 41).

It would have been obvious at the time of the invention to modify Becker et al. to include the at least one magnet comprises a first and second magnets as taught by Vig et al. in order to complete the magnetic circuit.

It is noted that any number of magnets may be used as long as they complete the magnetic circuit with the hall sensor.

As to Claim 15,

Becker et al. does not disclose the at least one magnet comprises a C-shape magnet.

Vig et al. discloses the at least one magnet comprises a C-shape magnet (Top Row / Middle Drawing in Figure 41).

It would have been obvious at the time of the invention to modify Becker et al. to include the at least one magnet comprises a C-shape magnet as taught by Vig et al. in order to complete the magnetic circuit.

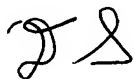
It is noted that any shape may be used as long as it completes the magnetic circuit with the hall sensor.

**Conclusion**


Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Schindler whose telephone number is (571) 272-2112. The examiner can normally be reached on M-F (8:00 - 5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on (571) 272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



David Schindler



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